HERRINGBONE TOOTHED BELT & PULLEY SYSTEM

# Eagle Timing Belts & Pulleys

**Cross-patterned herringbone teeth.** A self-tracking synchronous system that resists lateral drift while delivering high load capacity, precise speed sync and notably lower running noise.

| 2013 | 20,000+ | 22 | ISO 9001 | 15 Days |
|---|---|---|---|---|
| ESTABLISHED | M² FACILITY | PATENTS / CERTS | QUALITY SYSTEM | FAST DELIVERY |

WHAT MAKES IT "EAGLE"

# Herringbone teeth that keep the belt centered under load

Eagle timing belts are a key sub-category of toothed belts, defined by the cross-patterned **herringbone** (chevron) teeth on the working surface. They keep the core principle of tooth-to-groove meshing — so the driving and driven pulleys stay precisely in sync — while the angled teeth add stability and high load-bearing capacity. KUEISN engineers and produces both the belts and their matched **herringbone pulleys** as one system. Learn more about the company on the **About KUEISN** page or discuss tailored programs via **OEM & ODM**.

### Self-Tracking, Anti-Deviation

The opposed chevron angles generate balanced lateral forces that pull the belt back to center, sharply reducing edge wear and the need for flanges or guides.

### High Load-Bearing Capacity

Continuous angled tooth engagement spreads stress over more contact area, carrying higher torque and shock loads than a comparable straight-tooth belt.

### High Precision Synchronization

Tight, positive meshing holds a constant transmission ratio with no slip — ideal where positioning accuracy and repeatability are critical.

### Low Noise & Smooth Run

Progressive tooth entry — each chevron meshes gradually rather than all at once — cuts vibration and acoustic noise for quieter equipment.

### How self-tracking works

As the belt drifts sideways, the chevron geometry meets the pulley groove at an angle and produces a restoring force toward the center line — the belt corrects itself, run after run.

BELTS & MATCHED PULLEYS

# Five build options — choose belt, material and pulley as one set

Every belt below is offered with a matched herringbone pulley so meshing, alignment and load rating stay consistent across the drive. Explore each in the **Eagle timing belts & pulleys** catalog.

### Low-Noise Polyurethane Eagle Belts

PU · QUIET

PU herringbone belts tuned for the quietest operation — progressive chevron meshing plus a resilient polyurethane body minimize vibration in noise-sensitive lines.

View low-noise PU Eagle belt →

### Polyurethane Eagle Timing Belts

PU · STANDARD

The core PU herringbone belt: abrasion- and oil-resistant with steel or aramid tension cords for dimensional stability and dependable high-cycle service.

View polyurethane Eagle belt →

### PU Eagle Belts — Post-Processing

CUSTOM SURFACE

Base PU herringbone belts upgraded with surface treatments — backing coatings, profiles, perforations or cleats — to suit conveying, gripping and special-handling tasks.

View post-processed PU Eagle belt →

### Helical-Tooth Rubber Eagle Belts

RUBBER · HEAVY

Rubber herringbone belts with a helical (angled) tooth design for smooth, progressive engagement and strong load capacity in tougher industrial drives.

View helical rubber Eagle belt →

### High-Load Herringbone Synchronous Pulley

PULLEY

Precision-machined herringbone pulleys engineered to pair with the belts above — accurate groove geometry for true meshing, high load transfer and long service life.

View herringbone pulley →

CHOOSING THE BUILD

# Polyurethane or rubber — matched to your duty

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| ATTRIBUTE | POLYURETHANE (PU) EAGLE | RUBBER EAGLE (HELICAL) |
|---|---|---|
| **Best fit** | Clean, precise, low-noise automation & conveying | Higher-load, heavier-duty industrial drives |
| **Noise** | Very low — optimized low-noise grades available | Low, via progressive helical engagement |
| **Resistance** | Abrasion, oil & many chemicals; hygienic surface | Weather, wear & impact; robust under shock |
| **Tension cords** | Steel or aramid for dimensional stability | Glass-fiber / aramid for high strength |
| **Customization** | Post-processing: coatings, profiles, cleats, perforations | Profile & width to spec |

CONSTRUCTION

## Three layers doing three jobs

### ① Herringbone Teeth

Chevron-profiled working face — meshes with the pulley groove for positive, self-centering drive.

### ② Tension Member

Embedded steel or aramid cords carry the load and hold pitch length stable over millions of cycles.

### ③ Body & Backing

PU or rubber body bonds the system; the backing can be treated for grip, wear or conveying.

SELECTION

## Tell us five things for an exact match

| PARAMETER | WHY IT MATTERS |
|---|---|
| **Pitch & tooth profile** | Sets meshing geometry and the matching pulley. |
| **Belt width** | Drives load rating and lateral stability. |
| **Length / teeth count** | Closed-loop length or open-length cut to your layout. |
| **Load & speed** | Selects PU vs rubber and the right grade. |
| **Environment** | Temperature, oil, washdown or hygiene needs. |

### One supplier, matched belt & pulley

Pair Eagle belts with KUEISN **timing pulleys**, or compare with our **polyurethane timing belts** and **rubber timing belts** for the right fit.

WHERE EAGLE BELTS RUN

# Built for equipment that demands stable, drift-free transmission

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1 **General Machinery**
Reliable synchronous drive for a broad range of manufacturing equipment.

2 **Fluid Machinery & Compressors**
Stable, high-load transfer where vibration control matters.

3 **Printing & Packaging**
Precise registration and repeatable positioning at speed.

4 **Textile & Chemical Fiber**
Smooth, low-noise running for continuous-process lines.

5 **Automation & Precision**
Tight sync and self-tracking for accurate motion systems.

6 **Smart Warehousing & Logistics**
Durable conveying drives for sorting and handling upgrades.

WHY KUEISN

## A manufacturer, not just a supplier

**ISO 9001**
Controlled quality from material to final test

**Scale**
20,000 m² plant for competitive bulk supply

**R&D**
Deep customization of profile, material & size

**15 Days**
Fast, on-time delivery from sample to mass

## Request a quote or a sample

Send your pitch, width, length, load and environment — or a sample belt — and our engineers will match the right Eagle belt and herringbone pulley. Start on the **How To Buy** page, see more sectors on **Industries**, or browse the full **Eagle belts & pulleys** range.

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